Record Request No.: AG-RR-45 (Gas)

Please refer to the response to AG-RR-19 (Gas). (a)Please explain the "regression techniques" used in more detail. (b)What are the independent and dependent variables. (c)What 18 months are utilized? (d)How does the methodology address changes within customer classes, such as when customers are moved between general service rate schedules, or move from service to transportation rates, or vice versa? (e)Please describe in detail the "manual methods" that are used. (f)If these methods rely on base and heat sensitive use concepts, do they make an adjustment for the lag between sendout and sales. (g)Is this adjustment the same as that made by Mr. Harrison? (h)How do these methods address the changes within customer classes?

Response:

(a)   The regression techniques employ a commercially available software package to extract customer data from the billing system and estimate design day demand. FG&E's knowledge of the internal algorithms employed by this software is somewhat limited.

(b)   Regressions are based on a combination of historic billing (dependent) and temperature (independent) data, which uses the average daily temperature experienced during each measured historical usage period for each customer.

(c)   FG&E is currently utilizing two 18 month periods when calculating the amount of capacity to be assigned. As discussed in response to AG-RR-19 (Gas), FG&E uses commercially available software to perform these calculations. The periods being used are May 1998 through October 1999 and June 1999 through November 2000. In certain instances, FG&E's tariff requires that at least 12 months of data be used and that the period ends October 1999. See Attachment 1 AG-7-21 (Gas), Sections 13.3.3. and 13.3.4. FG&E uses 18 months rather than limiting the reference period to 12 months since the regression results are more accurate.

(d)   The capacity assignment method employs two steps. First, annually forecasted class sales and sendout data is used to develop design day resource allocation percentages (pipeline, storage and peaking). Second, individual customer design day demands of migrating customers are estimated using the aforementioned software package. Customer migration is addressed appropriately in both steps. The resource allocation percentages are computed on the basis of forecasted sales. So migration is implicitly included in these calculations to the extent that they have been incorporated in the FG&E's forecast. In the second step this technique of estimating design day demand is applied to each migrating customer individually. Therefore, moving from one class to

another doesn't have any effect on the methodology.

(e)   Manual methods are used when the software indicates an error. In the case of non-daily metered customers, the software automatically employs rate class averages as a proxy when individual regression analysis proves insignificant. To date, the only application of manual methods were for large customers that had daily use meters. The manual method used for these daily use customers is to take the average use for July and August as the base amount. Then taking the sales on the coldest day of the winter season, subtracting off this base amount and then dividing the resulting figure by the degree days on that date the heating increment per degree day is computed. The base degree-day figure is 65 degrees Fahrenheit and every degree below this amount is one degree day. On a peak cold day, FG&E uses a 70 degree day. Therefore the calculation would take the base amount add it to the heating increment multiplied by 70.

(f)   The manual methods are only performed for customers with daily metering. In these instances sales data, sendout data and weather data are all coincident, eliminating the need for any adjustment.

(g)   The method described in response to (e) is identical in concept to Mr. Harrison's peak month method, however, the time period is a day instead of a month.

(h).   See response to (d).

Person Responsible: Karen M. Asbury and James L. Harrison